APPENDIX 1. CURRICULUM VITAE

DENNIS WILLIAM CARLTON

June 2003

Business Address:

Lexecon Inc.

(312) 322-0215

332 South Michigan Avenue

Chicago, Illinois 60604

Home Address:

21 Lakewood Drive

(847) 835-8855

Glencoe, Illinois 60022

EDUCATION

Ph.D., MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, Massachusetts: Economics, 1975.

M.S., MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, Massachusetts: Operations Research, 1974.

A.B., HARVARD UNIVERSITY (Summa cum laude): Applied Math and Economics, 1972.

EMPLOYMENT

LEXECON INC., Chicago, Illinois (1977 - present): President, 1997 - 2001.

UNIVERSITY OF CHICAGO, Graduate School of Business (1984 - present): Professor of Economics.

UNIVERSITY OF CHICAGO, Law School (1980 - 1984): Professor of Economics.

UNIVERSITY OF CHICAGO, Department of Economics: Assistant Professor (1976 - 1979): Associate Professor (1979 - 1980).

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, Massachusetts, Department of Economics (1975 - 1976): Instructor in Economics.

OTHER PROFESSIONAL EXPERIENCE

HARVARD UNIVERSITY, Public Policy Summer Course in Economics (1977): Professor.

BELL TELEPHONE LABORATORIES (Summers 1976, 1977).

JOINT CENTER FOR URBAN STUDIES OF M.I.T. AND HARVARD UNIVERSITY, Cambridge, Massachusetts (1974 - 1975).

CHARLES RIVER ASSOCIATES, Cambridge, Massachusetts (Summers 1971, 1972): Research Assistant.

FIELDS OF SPECIALIZATION

Theoretical and Applied Microeconomics Industrial Organization

ACADEMIC HONORS AND FELLOWSHIPS

M.I.T., National Scholar Award, 1968 Edwards Whitacker Award, 1969 Detur Book Prize, 1969 John Harvard Award, 1970 Phi Beta Kappa, 1971

National Science Foundation Fellowship, 1972 - 1975

Recipient of Post-doctoral Grant from the Lincoln Foundation, 1975

National Science Foundation Grant, 1977 - 1985

Recipient of the 1977 P.W.S. Andrews Memorial Prize Essay, best essay in the field of Industrial Organization by a scholar under the age of thirty

Ph.D. Thesis chosen to appear in the Garland Series of Outstanding Dissertations in Economics Alexander Brody Distinguished Lecture, Yeshiva University, 2000

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Co-editor, Journal of Law and Economics, 1980 - present

Associate Editor, Regional Science and Urban Economics, 1987 - 1997

Associate Editor, The International Journal of Industrial Organization, 1991 - 1995

Member, American Economics Association, Econometrics Society

National Bureau of Economic Research, Research Associate

Member, Advisory Committee to the Bureau of the Census, 1987 - 1990

Editorial Board, Intellectual Property Fraud Reporter, 1990 - 1995

Consultant on Merger Guidelines to the U.S. Department of Justice, 1991 - 1992

Accreditation Committee, Graduate School of Business, Stanford University, 1995

Visiting Committee, MIT, Department of Economics, 1995 - present

Resident Scholar, Board of Governors of the Federal Reserve System, Summer, 1995

Member, Advisory Board, Economics Research Network, 1996 - present

Member, Steering Committee, Social Science Research Council, Program in Applied Economics, 1997 -

Participant in meetings with Committee of the Federal Reserve on Payment Systems, June 5, 1997

Participant in roundtable discussions on "The Role of Classical Market Power in Joint Venture Analysis," before the Federal Trade Commission, November 19, 1997 and March 17, 1998.

Member, Advisory Board of Antitrust and Regulation Abstracts, Social Science Research Network, 1998 present

Participant in the Round Table on the Economics of Mergers Between Large ILECS before the Federal Communications Commission, February 5, 1999.

Advisory Board, Massachusetts Institute of Technology, Department of Economics, 1999 - present Chairman, FTC Round Table on Empirical Industrial Organization (September 11, 2001)

Professor, George Mason Institute for Judges, October 2001

BOOKS

- "Market Behavior Under Uncertainty," Ph.D. Thesis, Massachusetts Institute of Technology (September 1975); Garland Publishing (1984).
- Modern Industrial Organization, Scott, Foresman & Co., co-authored with Jeffrey Perloff, first edition (1990), second edition (1994), translated into Chinese, French, Hungarian and Italian; Addison Wesley Longman, third edition (2000).

RESEARCH PAPERS

- "The Equilibrium Analysis of Alternative Housing Allowance Payments," (with Joseph Ferreira) Chapter 6 of Analysis of a Direct Housing Allowance Program, The Joint Center for Urban Studies of M.I.T. and Harvard University, (July 1975).
- "Theories of Vertical Integration," presented at Fourth Annual Telecommunications Conference. Appears in a volume of <u>Proceedings of the Fourth Annual Telecommunications Conference</u>, Office of Telecommunications Policy, (April 1976).
- "Uncertainty, Production Lags, and Pricing," American Economic Review, (February 1977).
- "Selecting Subsidy Strategies for Housing Allowance Programs," (with Joseph Ferreira) <u>Journal of Urban</u> <u>Economics</u>, (July 1977).
- "Peak Load Pricing With Stochastic Demand," <u>American Economic Review</u>, (December 1977).

 (Reprinted in <u>Economic Regulation</u> edited by P.L. Joskow, Edward Elgar Publishing Limited, 1998.)
- "The Distribution of Permanent Income," <u>Income Distribution and Economic Inequality</u>, edited by Zvi Griliches, et al. (Halsted Press, 1978).
- "Market Behavior with Demand Uncertainty and Price Inflexibility," <u>American Economic Review</u>, (September 1978).
- "Why New Firms Locate Where They Do: An Econometric Model," in <u>Studies in Regional Economics</u>, edited by W. Wheaton, (Urban Institute, 1980).
- "Vertical Integration--An Overview," in <u>Congressional Record Hearings on the Communications Act of 1978</u>. Bill H.R. 13105, (August 3, 1978).
- "Vertical Integration in Competitive Markets Under Uncertainty," <u>Journal of Industrial Economics</u>, (March 1979). Awarded the P.W.S. Memorial Prize for the best essay in the field of Industrial Organization by a scholar under the age of thirty.
- "Valuing Market Benefits and Costs in Related Output and Input Markets," <u>American Economic Review</u>, (September 1979).

- "Contracts, Price Rigidity and Market Equilibrium," Journal of Political Economy, (October 1979).
- "Benefits and Costs of Airline Mergers: A Case Study," (with W. Landes and R. Posner) <u>Bell Journal of Economics</u>, (Spring 1980). (Reprinted in "Air Transport" in <u>Classics In Transport Analysis</u> series, edited by Kenneth Button and Peter Nijkamp, 2001.)
- "The Limitations of Pigouvian Taxes as a Long Run Remedy for Externalities," (with G. Loury) <u>Quarterly</u> <u>Journal of Economics</u>, (November 1980).
- "The Law and Economics of Rights in Valuable Information: A Comment," Journal of Legal Studies, (December 1980).
- "Price Discrimination: Vertical Integration and Divestiture in Natural Resources Markets," (with J. Perloff) Resources and Energy, (March 1981).
- "The Spatial Effects of a Tax on Housing and Land," Regional Science and Urban Economics, (November 1981).
- "Comments on Weicher," Journal of Law and Economics, (December 1981).
- Comment, in Sherwin Rosen ed. Studies in Labor Markets, University of Chicago Press, (1981).
- "Planning and Market Structure," in <u>The Economics of Information and Uncertainty</u>, edited by J.J. McCall, University of Chicago Press, (1982).
- "The Disruptive Effect of Inflation on the Organization of Markets," in Robert Hall, ed. <u>The Economics of Inflation</u>, University of Chicago Press, (1982).
- "A Reexamination of Delivered Pricing," Journal of Law and Economics, (April 1983).
- "Futures Trading, Market Interrelationships, and Industry Structure," <u>American Journal of Agricultural</u> <u>Economics</u>, (May 1983).
- "The Location and Employment Choices of New Firms: An Econometric Model with Discrete and Continuous Endogenous Variables," <u>The Review of Economics and Statistics</u>, (August 1983).
- "The Need for Coordination Among Firms With Special Reference to Network Industries," (with J. M. Klamer) <u>University of Chicago Law Review</u>, (Spring 1983).
- "The Regulation of Insider Trading" (with D. Fischel), Stanford Law Review, (May 1983).
- "Economic Goals and Remedies of the AT&T Modified Final Judgement" (with W. Lavey), <u>Georgetown Law Review</u>, (August 1983).
- "Equilibrium Fluctuations When Price and Delivery Lags Clear the Market," <u>Bell Journal of Economics</u>, (Autumn 1983).

- "Futures Markets: Their Purpose, Their History, Their Growth, Their Successes and Failures," <u>Journal of Futures Markets</u>, (September 1984). (Reprinted in <u>Futures Markets</u> edited by A.G. Malliaris and W.F. Mullady, Edward Elgar Publishing Limited, 1995; and in <u>Classic Futures</u>: <u>Lessons from the Past for the Electronics Age</u>, edited by Lester Telser, Risk Books, 2000.)
- "Energy and Location," Energy Costs, Urban Development, and Housing, Brookings Institution, (1984).
- "The Limitation of Pigouvian Taxes As A Long Run Remedy for Externalities: Extension of Results," (with G. Loury) Quarterly Journal of Economics, (August 1986).
- "The Rigidity of Prices," American Economic Review, (September 1986).
- "The Theory and The Facts of How Markets Clear: Is Industrial Organization Valuable for Understanding Macroeconomics?" in <u>Handbook of Industrial Organization</u>, eds. Schmalensee and Willig, (1989).
- "Market Power and Mergers in Durable Good Industries," (with R. Gertner), <u>Journal of Law and Economics</u>, (October 1989).
- Comments on Vertical Integration and Market Foreclosure, <u>Brookings Papers on Economic Activity</u>, (December 19, 1989).
- Book Review of Tirole's <u>The Theory of Industrial Organization</u>, <u>Journal of Political Economy</u>, (June 1990).
- "The Genesis of Inflation and the Costs of Disinflation: Comment," <u>Journal of Money, Credit & Banking</u>, (August 1991, Part 2).
- "The Theory of Allocation and its Implications for Marketing and Industrial Structure: Why Rationing is Efficient," Journal of Law and Economics, (October 1991).
- "The Economics of Cooperation and Competition in Electronic Services Network Industries," in Economics of Electronic Service Networks, Wildman Steven ed., Praeger Press, (1992).
- "Merger Policy and Market Definition Under the EC Merger Regulation," Conference on Antitrust in a Global Economy, Fordham Corporate Law Institute, (1994).
- "The Antitrust Economics of Credit Card Networks," (with A. Frankel) Antitrust Law Journal, (Winter 1995).
- "Economic Organization and Conflict," <u>Journal of Institutional and Theoretical Economics</u>, (March 1995).
- "Antitrust and Higher Education: Was There a Conspiracy to Restrict Financial Aid?" (with G. Bamberger and R. Epstein) The Rand Journal of Economics, (Vol. 26, No. 1, Spring 1995, pp. 131-147).

- "The Competitive Effects of Line-of-business Restrictions in Telecommunications," (with K. Arrow and H. Sider), Managerial and Decision Economics, (Vol. 16, pp. 301-321, 1995). (Reprinted in Deregulating Telecommunications The Baby Bells Case for Competition, edited by Richard S. Higgins and Paul H. Rubin, John Wiley & Sons Ltd., 1995.)
- "The Antitrust Economics of Credit Card Networks: Reply to Evans and Schmalensee," (with A. Frankel), Antitrust Law Journal, (Spring 1995).
- "Antitrust and Payment Technologies," (with A. Frankel), <u>Review</u>, Federal Reserve Bank of St. Louis (November/December 1995).
- "Antitrust Policy Toward Mergers When Firms Innovate: Should Antitrust Recognize the Doctrine of Innovation Markets?" Testimony before the Federal Trade Commission Hearings on Global and Innovation-based Competition (October, 1995).
- "You Keep on Knocking But You Can't Come In: Evaluating Restrictions on Access to Input Joint Ventures," (with S. Salop), <u>Harvard Journal of Law & Technology</u>, (Volume 9, Summer, 1996). (Reprinted in <u>e-Commerce Antitrust & Trade Practices</u>, Practising Law Institute, 2001.)
- "Comments on Causes and Consequences of Airline Fare Wars," Micro Brookings Papers on Economic Activity, (1996).
- "A Critical Assessment of the Role of Imperfect Competition in Macroeconomics," in <u>Market Behaviour</u> and <u>Macro Economic Modeling</u>, Brakman, Van Ees, & Kuipers (eds.), MacMillan Press (1997).
- "Price Rigidity," Business Cycles and Depressions, David Glasner ed., Garland Publishing, Inc., (1997).
- "Communication Among Competitors: Game Theory and Antitrust," (with R. Gertner and A. Rosenfield), George Mason Law Review, (1997). (Reprinted in e-Commerce Antitrust & Trade Practices, Practising Law Institute, 2001.)
- "Comments on Born and Viscusi," Brookings Papers on Economic Activity: Microeconomics, (1998).
- "Antitrust and Higher Education: MIT Financial Aid (1993)" (September 1997) (with G. Bamberger), The Antitrust Revolution, (Oxford University Press), 3rd edition (1999).
- "Market Power and Vertical Restraints in Retailing: An Analysis of FTC v. Toys 'R' Us," (with H. Sider), The Role of the Academic Economist in Litigation Support, edited by Daniel Slottje, North Holland, (1999).
- "The Economics of Religion, Jewish Survival and Jewish Attitudes Toward Competition on Torah Education," (with A. Weiss), <u>Journal of Legal Studies</u>, (2001).
- "A General Analysis of Exclusionary Conduct and Refusal to Deal -- Why Aspen and Kodak are Misguided," <u>Antitrust Law Journal</u>, (2001). (Reprinted in <u>e-Commerce Antitrust & Trade Practices</u>, Practising Law Institute, 2001.)
- "The Lessons from Microsoft," Business Economics, (January 2001).

- "Lessons from Halacha About Competition and Teaching" (with A. Weiss), <u>Center for Business Ethics</u>
 Social Responsibility, http://besr.org/library/competition.html, (March 2001).
- "The Choice of Organizational Form in Gasoline Retailing and The Costs of Laws Limiting that Choice," (with A. Blass), <u>Journal of Law and Economics</u>, (October 2001).
- "Should The Merger Guidelines Be Scrapped? Introduction to a Debate," in <u>Symposium On The Antitrust</u>
 Analysis Of Mergers: Merger Guidelines vs. Five Forces, 33 U. WEST L.A. L. REV. 2001.
- "Contracts that Lessen Competition -- What is Section 27 for, and How Has it Been Used?" (with David Goddard), in Mark N. Berry and Lewis T. Evans eds., Competition Law at the Turn of the Century: A New Zealand Perspective, Victoria University Press (2003).
- "Free Riding and Sales Strategies for the Internet," (with J. Chevalier), <u>The Journal of Industrial Economics</u>, (December 2001).
- "The Competitive Effects of Fannie Mae," (with D. Gross and R. Stillman) Fannie Mae Papers, Volume I, Issue 1, January 2002.
- "The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries," (with M. Waldman), The Rand Journal (Vol. 33, No. 2, Summer 2002).
- Interview, Economists' Roundtable, Antitrust Magazine, Spring 2003.
- "Airline Networks and Fares," (with G. Bamberger), <u>Handbook of Airline Economics</u>, McGraw Hill (forthcoming).
- "Intellectual Property, Antitrust and Strategic Behavior," (with R. Gertner), <u>Innovation Policy and the Economy</u>, Volume 3, MIT Press (forthcoming).
- "The Control of Externalities in Sports Leagues: An Analysis of Restrictions in the National Hockey League," (with A. Frankel and E. Landes), <u>Journal of Political Economy</u>, (forthcoming).
- "The Relevance for Antitrust Policy of Theoretical and Empirical Advances in Industrial Organization", March, 2003, George Mason Law Review, (forthcoming).
- "An Empirical Investigation of the Competitive Effects of Domestic Airline Alliances, " (with G. Bamberger, and L. Neumann), <u>Journal of Law and Economics</u>, (forthcoming).

UNPUBLISHED PAPERS

- "Modeling the Housing Allowance Program," M.A. Thesis, Massachusetts Institute of Technology (September 1974).
- "The Cost of Eliminating a Futures Market and The Effect of Inflation on Market Interrelationships," (1984).

- "The Empirical Importance of Delivery Lags as an Explanation of Demand," (1984).
- "Statistical Supplement to The Antitrust Economics of Credit Card Networks: Reply to Evans and Schmalensee Comment, 63 Antitrust Law Journal 903 (1995)," (with Alan Frankel), (May 1997).
- "Competition, Monopoly, and Aftermarkets," (with M. Waldman), Working Paper No. 8086, National Bureau of Economic Research, January 2001.
- "An Empirical Assessment of Predation in the Airline Industry, " (with G. Bamberger).

EXPERT TESTIMONIAL EXPERIENCE

- Testimony of Dennis W. Carlton in Re: "Vertical Integration--An Overview." Congressional Record Hearings on the Communications Act of 1978: Proceedings before the House on Bill H.R. 13105, August 3, 1978.
- Testimony of Dennis W. Carlton, William M. Landes and Richard A. Posner in Re: <u>Competitive Effects</u> of the Proposed North Central-Southern Airline Merger: Proceedings before the Civil Aeronautics Board, Docket No. 33136, Exhibit NC/SO-T-7, October 13, 1978 and October 9, 1979.
- Testimony of Dennis W. Carlton in Re: McNeilab, Inc.: Proceedings before the United States

 Department of Justice, Drug Enforcement Administration, Docket No. 78-13, March 13, 1980 and

 May 1980 (Oral).
- Testimony of Dennis W. Carlton in Re: Acco Industries, Inc. v. Kresl Power Equipment, Inc.: In the U.S. Court of Appeals For the Seventh Circuit, Docket No. 80-2024, March 29, 1980.
- Deposition, Testimony, and Rebuttal Testimony of Dennis W. Carlton in Re: Ethyl Corporation:
 Proceedings before the Federal Trade Commission, Docket No. 9128, November 10 & 11, 1980 (Deposition), November 13 & 14, 1980 (Testimony), and February 20, 1981 (Rebuttal).
- Deposition of Dennis W. Carlton in Re: <u>Independence Tube Corporation v. Copperweld Corporation, Regal Tube Company, The Yoder Company v. David F. Grohne (counter-defendant)</u>: In the U.S. District Court for the Northern District of Illinois, Eastern Division, No. 76 C 4201, January 24, 1981.
- Affidavit of Dennis W. Carlton in Re: Ellis Banking Corporation, Ellis First National Bank of Bradenton, and Ellis First Security Bank v. Barnett Banks of Florida, Inc., Barnett Bank of Manatee County, and Westside National Bank of Manatee County: In the U.S. District Court for the Middle District of Florida, Tampa Division, No. 81-693-Civ-T-H, July 28, 1981.
- Deposition and Economic Report of Dennis W. Carlton in Re: <u>Schneider Industrial Sales and Service</u>

 <u>Company, William Schneider and Mary Emily Schneider v. Acco Industries, Inc.</u>: In the U.S.

 District Court for the District of New Jersey, April 19, 1982.

- Deposition and Testimony of Dennis W. Carlton in Re: <u>City of Batavia, et al. v. Commonwealth Edison Company</u>: Proceedings before the U.S. District Court, Northern District of Illinois, Eastern Division, No. 76 C 4388, May 17, 18 & 25, 1982 (Deposition), and July 22, 1982 (Testimony).
- Deposition of Dennis W. Carlton in Re: M. K. Metals Inc., et al. v. National Steel Corporation: In the U.S. District Court for the Northern District of Illinois, Eastern Division, No. 79 C 1661, September 15, 1983.
- Declaration and Deposition of Dennis W. Carlton in Re: <u>Carter Hawley Hale Stores, Inc. v. The Limited, Inc., et al.</u>: In the U.S. District Court, Central District California, No. CV 84 22000 AWT (JRX), April 21, 1984 (Declaration), and April 23, 1984 (Deposition).
- Verified Statements and Testimony of Dennis W. Carlton in Re: <u>Denver & Rio Grande Western Railroad v. Santa Fe Southern Pacific Corporation et al</u>: Proceedings before the Interstate Commerce Commission, Docket No. 30400, August 28, 1984, November 14, 1984, and May 22, 1985, (Statements), and January 30, 1985, and June 19, 1985, (Testimony).
- Affidavit of Dennis W. Carlton and William M. Landes in Re: <u>United States of America v. Western</u>
 <u>Electric Company, Inc. and American Telephone and Telegraph Company</u>: In the United States
 District Court for the District of Columbia, December 19, 1984.
- Statement of Carlton, DeMuth, Landes, and Rosenfield in Response to the National Telecommunications Information Administration (NTIA) Request for Comments in Connection with the Comprehensive Study of the Structure and Regulation of the U.S. Telecommunications Industry, March 29, 1985.
- Deposition and Affidavit of Dennis W. Carlton in Re: <u>L&W Industries</u>, <u>Inc. v. American Standard</u>, <u>Inc.</u>: In the U.S. District Court, Eastern District of Wisconsin, Civil Action No. 81-C-1409, May 14, 1985 (Deposition) and August 30, 1985 (Affidavit).
- Testimony of Dennis W. Carlton in Re: E. I. Du Pont De Nemours and Company's Thebaine Import Application: Proceedings before the U.S. Department of Justice, Drug Enforcement Administration, Docket No. 84-51, May 31, 1985.
- Testimony of Dennis W. Carlton, William M. Landes and Sam Peltzman in Re: <u>Joint Application of Pan American World Airways</u>, Inc. and <u>United Airlines</u>, Inc., <u>Pacific Division Transfer Case</u>: Proceedings before the U.S. Department of Transportation, Docket No. 43065, August 7, 1985.
- Deposition of Dennis W. Carlton in Re: <u>General Motors "THM 200" Transmission Litigation</u>: Proceedings before the U.S. District Court, Northern District of Illinois, Eastern Division, No. 79 C 1249, 80 C 2151 and 85 C 4805, July 2, 1986.
- Affidavit of Dennis W. Carlton in Re: Norwest Bank Fire Case: Proceedings before the U.S. District Court, Fourth Judicial District, State of Minnesota, Court File No. 83-08122, August 28, 1986.
- Affidavit of Dennis W. Carlton in Re: <u>Policy and Rules Concerning Rates for Dominant Carriers</u>: Before the Federal Communications Commission, Washington, D.C., Docket No. 87-313, October 16, 1987.

- Deposition of Dennis W. Carlton in Re: Research Institute for Medicine and Chemistry, Inc. v. Wisconsin Alumni Research Foundation: In the U.S. District Court, Western District of Wisconsin, Case No. 85-C-1060-D, October 20 & 21, 1986.
- Affidavit and Deposition of Dennis W. Carlton in Re: <u>United States Football League</u>, et al. v. National <u>Football League</u>, et al.: In the U.S. District Court, Southern District of New York, 84 Civ. 7484 (PKL), November 24, 1986 (Affidavit), February 26, 1986 and December 4, 1986 (Deposition).
- Verified Statements of Dennis W. Carlton in Re: <u>Coal Trading Corporation</u>, et al. v. The <u>Baltimore and Ohio Railroad Co.</u>, et al.: Before the Interstate Commerce Commission, ICC Docket No. 38301S, December 16, 1986 and September 8, 1987.
- Testimony of Dennis W. Carlton in Re: The Application of Pacific Bell, a Corporation, for Authority to Increase Certain Intrastate Rates and Charges Applicable to Telephone Services Furnished within the State of California, California Public Utilities Commission, Application No. 85-01-034, December 19, 1986, and January 22 & 28, 1987.
- Deposition of Dennis W. Carlton in Re: <u>John H. Torphy v. Touche Ross & Co., et al</u>: In the Circuit Court Dane County, State of Wisconsin, Case No. 82-CV-4033, August 25, 1987.
- Deposition of Dennis W. Carlton in Re: Martin Exploration Management Company, et al. v. Panhandle

 <u>Eastern Corporation</u>, et al.: In the U.S. District Court for the District of Colorado, Civil Action
 No. 86-Z-804, May 5, 6 & 18, 1988.
- Deposition of Dennis W. Carlton in Re: <u>The Dow Chemical Company v. Halliburton Company and The Dow Chemical Company v. Mississippi Power & Light Company</u>: In the U.S. District Court for the Northern District of Mississippi Greenville Division, No. GC-78-31-GD-D and No. GC-78-32-GD-D, June 16, 1988.
- Statements and Testimony of Dennis W. Carlton in Re: <u>Trailer Train Company et al.</u>, <u>Approval of Pooling of Car Service With Respect to Flat Cars</u>: Before the Interstate Commerce Commission, Finance Docket No. 27590. (Sub-No. 1), July 7 & 14, 1988 (Statements) and July 25 & 26, 1988 (Testimony).
- Testimony of Dennis W. Carlton in Re: <u>Pontarelli Limousine, Inc. v. City of Chicago</u>, Finance Docket No. 83-C-6716, September 25 & 26, 1989.
- Deposition of Dennis W. Carlton in Re: <u>Great Northern Nekoosa Corporation v. Georgia-Pacific Corporation</u>: Before the United States District Court District of Connecticut, Civ. Action No. B-89-607-WWE, December 28, 1989 and January 15, 1990.
- Testimony of Dennis W. Carlton in Re: The Matter of the Physicians and Surgeons Medical Malpractice

 Insurance Rates of St. Paul Fire & Marine Insurance Company: Before the State of Minnesota

 Office of Administrative Hearings for the Commissioner of Commerce, O.A.H. Docket No. 0
 1004-3412-2, January 1990.

- Deposition of Dennis W. Carlton in Re: <u>Dale A. Ervin, et al. v. Amoco Oil Company, et al.</u>: In the District Court, City and County of Denver, State of Colorado, No. 88-CV-11994, September 5, 1990.
- Reply Affidavit of Dennis W. Carlton and George J. Stigler in Re: <u>United States of American v. Western</u>
 <u>Electric Company Inc. and American Telephone and Telegraph Company</u>: In the United States
 District Court for the District of Columbia, Civil Action No. 82-0192, January 10, 1991.
- Testimony of Dennis W. Carlton in Re: <u>Westreco, Inc. v. Commissioner of Internal Revenue</u>: In the United States Tax Court, Washington, D.C. 20217, Docket No. 24078-88, January 29, 1991.
- Deposition, Testimony, and Rebuttal Testimony of Dennis W. Carlton in Re: In the Matter of Marathon Oil Company and Phillips Petroleum Company: Before the Department of Revenue, State of Alaska, Case No. 89314, April 23 & 24, 1991 (Deposition), March 28, 1991, June 19, 1991 (Testimony), July 22, 1991 (Rebuttal Testimony) and October 3 & 4, 1991 (Oral).
- Deposition of Dennis W. Carlton in Re: <u>Martin Exploration Management Company</u>, et al. v. Panhandle <u>Eastern Pipeline Corporation</u>, et al.: In the U.S. District Court for the District of Colorado, Civil Action No. 91-N-110, February 5, 1992.
- Deposition, Affidavit and Testimony of Dennis W. Carlton in Re: <u>United States of America v. Brown</u>
 <u>University, et al.</u>: In the U.S. District Court For the Eastern District of Pennsylvania, Civil Action No. 91-CV-3274, February 18 & 19, 1992 (Deposition), April 28, 1992 (Affidavit), and July 8 & 9, 1992 (Testimony).
- Deposition of Dennis W. Carlton in Re: <u>United States of America, People of The State of California, et al.</u>
 <a href="https://www.nc.nih.gov.nc
- Affidavit of Dennis W. Carlton in Re: <u>SCFC ILC</u>, Inc. d/b/a MountainWest Financial v. Visa U.S.A., Inc.: In the U.S. District Court for the District of Utah, Central Division, Civil No. 2:91-cv-047B, June 25, 1992.
- Deposition and Testimony of Dennis W. Carlton in Re: Adcom, Incorporated, Cutrone Communications, Incorporated, Great Southern Communications Incorporated, Nola Communications Incorporated and Conrad Communications, Incorporated v. Nokia Corporation, Nokia-Mobira Oy, Nokia-Mobira, Incorporated, Nokia, Incorporated, Nokia Data Communications and Cue Paging Corporation: In the United States District Court for the Eastern District of Louisiana, Civil Action Number 90-4088, November 3 & 4, 1992 (Deposition), and February 9 & 10, 1993 (Testimony).
- Statement, Supplemental Statement and Deposition of Dennis W. Carlton in Re: City of Dillingham, et al. v. Western Pioneer, Inc., et al., and City of Nome v. Western Pioneer, Inc., et al.: In the United States District Court for the District of Alaska, No. A89-014 Civil (Consolidated for Pre-Trial Proceedings with No. N89-004 Civil), November 6, 1992 (Statement and Supplemental Statement) and November 24, 1992 (Deposition).

- Verified Statement of Dennis W. Carlton in Re: Kansas City Southern Industries, Inc., The Kansas City

 Southern Railway Company and K&M Newco, Inc. -- Control -- MidSouth Corporation,

 MidSouth Rail Corporation, MidLouisiana Rail Corporation, SouthRail Corporation and TennRail

 Corporation, Before the Interstate Commerce Commission, Finance Docket No. 32167, May

 1993.
- Verified Statements and Deposition of Dennis W. Carlton in Re: <u>Union Pacific Corporation, Union Pacific Railroad Company and Missouri Pacific Railroad Company -- Control -- Chicago and North Western Holdings Corp. and Chicago and Northwestern Transportation Company:</u> Before the Interstate Commerce Commission, Finance Docket No. 32133, May 24, 1993, June 21, 1993, and November 24, 1993 (Statements), and March 17, 1994, and July 26, 1994 (Deposition).
- Verified Statement of Dennis W. Carlton in Re: <u>Application of TTX Company and Certain Common Carriers by Railroad For Approval of Amendment of Pooling Agreement and Car Contract Extending Their Terms</u>, Before the Interstate Commerce Commission, Finance Docket No. 27590 (Sub-No. 2), November 19, 1993.
- Deposition of Dennis W. Carlton in Re: Merck & Co., Inc. v. Alcon Laboratories, Inc., In the United States District Court for the District of Delaware, No. C.A. 92-691, December 14, 1993.
- Deposition and Affidavit of Dennis W. Carlton in Re: Northwest Airlines, Inc. v. American Airlines, Inc.,
 Before the United States District Court, District of Minnesota, Fourth Division, C.V. No. 4-91539, February 22 & 23, 1994, May 16 & 17, 1995, and July 8, 1997 (Deposition); and February
 20, 1995 and May 9, 1996 (Affidavit).
- Testimony of Dennis W. Carlton in Re: Florida Power & Light Company: Before the Federal Energy Regulatory Commission, Docket Nos. ER93-465-000, ER93-507-000, ER-93-922-000, and EL94-12-000, April 5, 1994, October 19, 1994, and June 22, 1995.
- Testimony of Dennis W. Carlton in Re: <u>The Matter of Touchfax Information Systems Inc. and Landis & Gyr Communications</u>: Before the American Arbitration Association, No. 13-T-133-00260-93, May 10, 1994.
- Affidavit and Declaration of Kenneth J. Arrow and Dennis W. Carlton in Re: <u>United States of America v.</u>

 <u>Western Electric Company, Inc., and American Telephone and Telegraph Company</u>: Before the United States District Court for the District of Columbia, Civil Action No. 82-0192, February 28, 1994 (Affidavit), and May 30, 1995 (Declaration).
- Affidavit and Testimony of Dennis W. Carlton and Alan S. Frankel in Re: Leonard R. Kahn v. Emerson Electric Co., a Missouri corporation; Hazeltine Corporation, a Delaware corporation; and Motorola, Inc., a Delaware corporation; John Doe corporations 1-x; and John Does 1-x, individually; Before the United States District Court, for the Eastern District of New York, 92 Civ. 3063 (ADS), October 20, 1994 (Affidavit), and May 22, 1995 (Testimony).
- Deposition and Testimony of Dennis W. Carlton in Re: Federal Trade Commission v. B.A.T. Industries
 P.L.C., Brown and Williamson Tobacco Corporation; American Brands, Inc.; and American
 Tobacco Company, Before the United States District Court, Southern District of New York, C.V.
 No. 94 Civ. 7849, November 20, 1994 (Deposition), and December 14, 1994 (Testimony).

- Affidavit, Supplemental Affidavit and Deposition of Dennis W. Carlton in Re: Weatherford Roofing

 Company v. Employers National Insurance Company and Employers Casualty Company et al: In
 the United States District Court for the District of Dallas County, Texas, 116th Judicial District,
 No. 91-05637, May 5, 1995 (Affidavit), May 9-10 & June 1, 1995 (Deposition), and October 20,
 1995 (Supplemental Affidavit).
- Affidavit of Dennis W. Carlton in Re: <u>Airline Travel Agency Commission Antitrust Litigation</u>: In the United States District Court for the District of Minnesota, No. 4-95-107, June 14, 1995.
- Declaration of Dennis W. Carlton in Re: <u>Donnelly Corporation v. Gentex Corporation</u>: In the United States District Court for the Western District of Michigan, Southern Division, Case No. 1:93 CV 530, October 20, 1995.
- Testimony of Dennis W. Carlton before the Federal Trade Commission Hearings on Global and Innovation-based Competition, October 25, 1995.
- Report and Deposition of Dennis W. Carlton in Re: <u>Brand Name Prescription Drugs Antitrust Litigation</u>, In the United States District Court for the Northern District of Illinois, Eastern Division, MDL No. 997, November 20, 1995 (Report), December 18 & 19, 1995 (Deposition).
- Expert Report and Deposition of Dennis W. Carlton in Re: Johnson Matthey v. General Motors (Antitrust Counterclaim), District Court for the Eastern District of Wisconsin, No. 93 C 0931, January 9, 1996 (Expert Report), February 14, 1996 (Deposition).
- Brief of Evidence, Summary of Evidence, and Testimony of Dennis W. Carlton on Behalf of Defendants in Re: Shell (Petroleum Mining) Company Limited and Todd Petroleum Mining Company Limited v. Kapuni Gas Contracts Limited and Natural Gas Corporation of New Zealand Limited, In the High Court of New Zealand, Auckland Registry, Commercial List, CL 5/94, April 2, 1996 (Brief of Evidence), July 18, 1996 (Summary of Evidence), and July 18-19, 1996 (Testimony).
- Expert Report, Deposition, and Testimony of Dennis W. Carlton in Re: <u>The Matter of the Arbitration Between Sprint Communications Company L.P. and Network 2000 Communications Corporation</u>, Arbitration Case Number 57 181 0013 94, July 15, 1996 (Expert Report with H. Sider), August 12, 1996 (Deposition), and September 27, 1996 (Testimony).
- Testimony and Prepared Statement of Dennis W. Carlton on behalf of Sacramento Municipal Utility
 District in Re: Pacific Gas & Electric Company, San Diego Gas & Electric Company, and
 Southern California Edison Company: Before the Federal Energy Regulatory Commission
 Technical Conference on Market Power & Transmission Pricing, Docket Nos. ER96-1663-000,
 EC96-19-000, EL96-48-000, September 12, 1996.
- Declaration of Dennis W. Carlton in Re: <u>United States of America v. International Business Machines</u>: In the United States District Court for the Southern District of New York, Civil Action No. 72-344 (AGS), November 12, 1996.

- Expert Report, Affidavit Rebuttal and Deposition of Dennis W. Carlton in Re: <u>Bell Atlantic Corporation</u> and <u>DSC Communications Corporation v. AT&T Corporation and Lucent Technologies Inc.</u>, Civil Action No. 5-96CV45, December 4, 1996 (Expert Report with R.E. Olley and D.S. Sibley), January 10, 1997 (Affidavit Rebuttal with R.E. Olley and D.S. Sibley), and January 21, 1997 (Deposition).
- Affidavit of Dennis W. Carlton in Re: Pacific Gas & Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company: United States of America Before the Federal Energy Regulatory Commission, FERC Docket No. ER96-1663-000, January 16, 1997 (with G.E. Bamberger).
- Affidavit of Dennis W. Carlton in Re: Advanta Corp., Advanta National Bank U.S.A., and Advanta

 National Bank v. Visa U.S.A., Inc. and Mastercard International, Inc.: In the United States

 District Court for the Eastern District of Pennsylvania, Civil Action No. 96-CV-7940, January 21, 1997.
- Deposition, Testimony, and Surrebuttal Testimony of Dennis W. Carlton in Re: In the Matter of Toys "R"

 <u>Us, Inc.</u>: In the United States of America Before the Federal Trade Commission, File No. 9278,

 March 16, 1997 (Deposition), April 16 and 25, 1997 (Testimony), and June 3, 1997 (Surrebuttal Testimony).
- Deposition of Dennis W. Carlton in Re: In the Matter of Theresa Aguilar, et al vs. Atlantic Richfield

 Corporation et al: In the Superior Court of the State of California In and For the County of San

 Diego, File No. 700810, September 30, 1997 (Deposition).
- Report of Dennis W. Carlton in Re: Few Ready Mix Concrete Co., v. Transit Mix Concrete & Materials

 Co., et al: In the United States District Court for the Eastern District of Texas Lufkin Division,
 No. 9:96-CV-86, October 31, 1997 (with W. J. Lynk).
- Verified Statement, Depositions, Verified Reply Statement, and Verified Rebuttal Statement of Dennis W. Carlton in Re: <u>CF Industries, Inc. v. Koch Pipeline Company, L.P.</u>: In the United States of America Before the Department of Transportation Surface Transportation Board, No. 41685, November 7, 1997 (Verified Statement), December 19, 1997 (Deposition), January 8, 1998 (Verified Reply Statement), February 3, 1998 (Deposition), and February 20, 1998 (Verified Rebuttal Statement).
- Expert Witness Report, Deposition and Affidavits of Dennis W. Carlton in Re: <u>Industrial Silicon Antitrust Litigation</u>: In the United States District Court for the Western District of Pennsylvania, No. 95-2104, January 9, 1998 (Expert Witness Report), February 10-11, 1998 (Deposition), April 8, 1998 (Affidavit), and June 29, 1998 (Affidavit).
- Declaration of Dennis W. Carlton in Re: <u>Applications of WorldCom, Inc. and MCI Communications</u>

 <u>Corporation for Transfer of Control of MCI Communications Corporation to WorldCom, Inc.</u>:

 Before the Federal Communications Commission, CC Docket No. 97-211, January 25, 1998

 (with H. Sider)

- Expert Report and Deposition of Dennis W. Carlton in Re: <u>Bepco, Inc., et al v. AlliedSignal Inc. and AlliedSignal Truck Brake System Co.</u>: In the United States District Court for the Middle District of North Carolina, Winston-Salem Division, No. 6:96CV00274, February 3, 1998 (Expert Report) and March 3, 1998 (Deposition).
- Affidavit of Dennis W. Carlton in Re: Petition of WorldCom, Inc. for Approval to Transfer Control of MCI Communications Corporation to WorldCom, Inc.: Before the New York State Public Service Commission, No. 97-C-1804, February 16, 1998 (with H. Sider).
- Affidavit of Dennis W. Carlton in Re: Petition of WorldCom, Inc. for Approval to Transfer Control of MCI Communications Corporation to WorldCom, Inc.: Before the Florida Public Service Commission, No. 971375-TP, February 27, 1998 (with H. Sider).
- Second Declaration of Dennis W. Carlton in Re: Applications of WorldCom, Inc. and MCI

 Communications Corporation for Transfer of Control of MCI Communications Corporation to

 WorldCom, Inc.: Before the Federal Communications Commission, CC Docket No. 97-211,

 March 19, 1998 (with H. Sider).
- Affidavit, Reports, Reply Affidavit, Reply Report, Prepared Statements and Testimony of Dennis W. Carlton in Re: The Merger of SBC Communications Inc. with Ameritech Corporation: Before the Federal Communications Commission, CC Docket No. 98-141, July 20, 1998 (Affidavit and Report), November 12, 1998 (Reply Affidavit and Reply Report), February 5, 1999 (Prepared Statements and Testimony as a Participant in the Round Table on the Economics of Mergers Between Large ILECS), April 13, 1999 (Report to the FCC on Supplemental Analysis of the Katz/Salop Hypothesis).
- Report and Supplemental Report of Dennis W. Carlton in Re: <u>Riverside Pipeline Company v. Panhandle Eastern Pipeline Company</u>: In the U.S. District Court for the Western District of Missouri, No. 97-0642-CV-W-4, September 20, 1998 (Report with H. Sider) and January 7, 1999 (Supplemental Report).
- Statement of Dennis W. Carlton in Re: Enforcement Policy Regarding Unfair Exclusionary Conduct in the Air Transportation Industry: Before the Department of Transportation, Office of the Secretary, Washington, D.C., Docket No. OST-98-3713, September 24, 1998 (with G. Bamberger).
- Report and Deposition of Dennis W. Carlton in Re: <u>The Procter & Gamble Company, et al. vs. Amway Corporation, et al</u>: In the U.S. District Court for the Southern District of Texas, Houston Division, January 8, 1999 (Report) and February 9, 1999 (Deposition).
- Responsive Direct Testimony and Prepared Answering Testimony of Dennis W. Carlton for Intervenor Oklahoma Gas and Electric Company in Re: <u>Joint Application of American Electric Power Company, Inc., Public Service Company of Oklahoma and Central and South West Corporation Regarding Proposed Merger:</u> Before the Corporation Commission of the State of Oklahoma, Cause No. PUD 980000444, March 29, 1999 (with G. Bamberger).

- Report and Declaration of Dennis W. Carlton in Re: <u>Telnet Communications, Inc., et al. v. WorldCom, Inc., et al.</u>: In the United States District Court for the Southern District of Texas, Houston Division, No. H-98-2020, March 30, 1999 (Report) and April 28, 1999 (Declaration).
- Prepared Answering Testimony and Exhibits of Dennis W. Carlton on Behalf of Oklahoma Gas and Electric Company in Re: <u>American Electric Power Company, Inc. and Central and South West Corporation</u>: United States of America Before the Federal Energy Regulatory Commission, FERC Docket Nos. ER98-40-000, ER98-2770-000, ER98-2786-000, April 27, 1999 (with G. Bamberger).
- Expert Report, Deposition and Supplemental Report of Dennis W. Carlton in Re: <u>United States of America vs. American Society of Composers, Authors and Publishers in the Matter of the Application of Turner Broadcasting Systems Inc. for the Determination of Reasonable License Fees: Before the United States District Court, Southern District of New York, Civ. 13-95 (WCC) (Referred to Magistrate Judge Dolinger), April 15, 1999 (Expert Report), July 28-29 and August 5, 1999 (Deposition), and December 16, 1999 (Supplemental Report).</u>
- Declaration, Deposition and Reply Declaration of Dennis W. Carlton in Re: <u>Visa Check/MasterMoney</u>
 <u>Antitrust Litigation</u>: Before the United States District Court, Eastern District of New York, No. CV 96-5238 (JB) RLM), April 15, 1999 (Declaration), May 25, 1999 and June 1, 1999 (Deposition), and August 1, 1999 (Reply Declaration).
- Report and Deposition of Dennis W. Carlton in Re: Zeneca Limited, Zeneca Holdings Inc., and Zeneca Inc. v. Rhone-Poulenc Inc. and Rhone-Poulenc AG Company: In the United States District Court for the District of Delaware, No. 97-652-GMS, May 17, 1999 (Report) and June 16, 1999 (Deposition).
- Affidavit and Reply Affidavit of Dennis W. Carlton in Re: Andersen Consulting Business Unit Member Firms v. Arthur Andersen Business Unit Member Firms and Andersen Worldwide Societe

 Cooperative: Before the International Court of Arbitration of the International Chamber of Commerce, No. 9797/CK, June 2, 1999 (Affidavit) and September 13, 1999 (Reply Affidavit).
- Affidavit, Report, Rebuttal Report, Reply Report, Rebuttal Report and Testimony of Dennis W. Carlton in Re: The Commissioner of Competition and Superior Propane Inc. and ICG Propane Inc.: Before The Competition Tribunal, No. CT-98/2, August 17, 1999 (Affidavit and Report), September 14, 1999 (Rebuttal Report with G. Bamberger), September 19, 1999 (Reply Report with G. Bamberger), September 27, 1999 (Rebuttal Report to Professor Michael Ward with G. Bamberger), and December 13-14, 1999 (Testimony with G. Bamberger).
- Declaration of Dennis W. Carlton in Re: Merger of Qwest Communications International Inc. and U S

 WEST, Inc.: Before the Federal Communications Commission, CC Docket No. 99-272, October 18, 1999 (with Hal Sider).
- Prepared Direct Testimony, Deposition and Cross-Examination of Dr. Dennis W. Carlton on behalf of Sierra Pacific Power Company in Re: <u>United States of America Before the Federal Energy Regulatory Commission</u>: Docket Nos. ER99-28-001, ER99-28-003, EL99-38-002 and ER99-945-002, November 17, 1999 (Prepared Direct Testimony), January 10, 2000 (Deposition), and April 26 and May 1, 2000 (Cross-Examination).

- Expert Report and Deposition of Dennis W. Carlton in Re: <u>United States of America v. Northwest Airlines Corporation and Continental Airlines, Inc.</u>: In the United States District Court for the Eastern District of Michigan, Southern Division, Civil Action No. 98-74611, January 27, 2000 (Expert Report) and June 7, 2000 (Deposition).
- Declaration and Ex Parte Declaration of Dennis W. Carlton in Re: <u>Joint Applications of MCI WorldCom</u>, <u>Inc.</u>, and <u>Sprint Corporation for Consent to Transfer Control</u>: Before the Federal Communications Commission, CC Docket No. 99-333, February 18, 2000 (Declaration with H. Sider), and May 10, 2000 (Ex Parte Declaration with H. Sider).
- Testimony, Rebuttal Testimony and Cross-Examination of Dennis W. Carlton on behalf of Sacramento Municipal Utility District in Re: Application of Pacific Gas and Electric Company to Market Value Hydroelectric Generating Plants and Related Assets Pursuant to Public Utilities Code Sections 367(b) and 851: Before the Public Utilities Commission of the State of California, application No. 99-09-053, March 2, 2000 (Testimony), March 16, 2000 (Rebuttal Testimony) and May 9, 2000 (Cross-Examination).
- Affidavit, Deposition and Reply Affidavit of Dennis W. Carlton in Re: <u>Gregory F. Daniel, M.D., et al., v. American Board of Emergency Medicine, et al</u>: In the United States District Court for the Western District of New York, Civil Action No. 90-CV-1086A, March 3, 2000 (Affidavit), April 17 and 18, 2000 (Deposition), and July 12, 2000 (Reply Affidavit).
- Expert Report, Reply Expert Report, Deposition and Supplemental Report of Dennis W. Carlton in Re:

 <u>CSX Transportation, Inc. V. Qwest Communications International, Inc.</u>: In the United States
 District Court for the Middle District of Florida, Jacksonville Division, Civil Action No. 99-412CIV-J-21C, July 19, 2000 (Expert Report), October 11, 2000 (Reply Expert Report), January 1011, 2001 (Deposition), and July 18, 2001 (Supplemental Report).
- Reply Declaration of Dennis W. Carlton in Re: <u>Joint Application of Northpoint Communications and Verizon Communications for Authority to Transfer Control of Blanket Authorization to Provide Domestic Interstate Telecommunications Services as a Non-Dominant Carrier:</u> Before the Federal Communications Commission, Washington DC, Docket No. 00-157, October 17, 2000 (with H. Sider).
- Declaration and Reply Declaration of Dennis W. Carlton in Re: In the Matter of Inquiry Concerning

 High-Speed Access to the Internet Over Cable and Other Facilities: Before the Federal

 Communications Commission, Washington DC, Docket No. 00-195, December 1, 2000

 (Declaration with K. Arrow and G. Becker), and January 10, 2001 (Reply Declaration with K. Arrow and G. Becker).
- Report, Rebuttal Report and Deposition of Dennis W. Carlton in Re: Rambus Inc. v. Infineon

 Technologies AG, Infineon Technologies North America Corp., Infineon Technologies, Inc.,

 Infineon Technologies Holding North America Corp., and Infineon Technologies Corp.: In the
 United States District Court for the Eastern District of Virginia, Richmond Division, Civil Action
 No. 3:00CV524, December 20, 2000 (Report), January 19, 2001 (Rebuttal Report), and February
 6, 2001 (Deposition).

- Reports, Rebuttal Reports, Deposition and Declaration of Dennis W. Carlton in Re: Micron Technology, Inc. v. Rambus Inc.: In the United States District Court for the District of Delaware, Civil Action No. 00-792, March 28, 2001 (Report), April 13, 2001 (Rebuttal Report), April 18, 2001 (Deposition), and August 17, 2001 (Report), September 17, 2001 (Rebuttal Report), and Declaration (October 1, 2001).
- Expert Report, Deposition and Testimony of Dennis W. Carlton in Re: <u>Amgen Inc. v. Ortho</u>

 <u>Pharmaceutical Corp.</u>: Endispute Arbitration, Chicago, Illinois, August 31, 2001 (Expert Report),
 November 27-28, 2001 (Deposition), and May 9-10, 2002 (Testimony).
- Testimony of Dennis W. Carlton in Re: <u>Empirical Industrial Organization Roundtable</u>: Before the Federal Trade Commission, Matter No. P015602 (September 11, 2001).
- Expert Report of Dennis W. Carlton in Re: <u>Artemio Del Serrone, et al. v. Philip Morris Companies, Inc., et al.</u>: In the Circuit Court for the County of Wayne, State of Michigan, No. 00-004035 CZ, December 19, 2001.
- Expert Report and Deposition of Dennis W. Carlton in Re: Cigarette Price-Fixing Litigation and related cases, Holiday Wholesale Grocery Company, et al. v. Philip Morris Incorporated, et al.: In the United States District Court for the Northern District of Georgia, Atlanta Division, No. 1:00-CV-0447-JOF, MDL No. 1342, December 19, 2001 (Expert Report) and January 23, 2002 (Deposition).
- Expert Report and Deposition of Dennis W. Carlton in Re: <u>Flat Glass Antitrust Litigation</u>: In the United States District Court for the Western District of Pennsylvania, No. 97-550, MDL NO. 1200, December 20, 2001 (Expert Report) and February 4-6, 2002 (Deposition).
- Expert Report, Supplemental Expert Report, and Deposition of Dennis W. Carlton in Re: Symbol Technologies et al v. Lemelson Medical et al and Cognex Corporation v. Lemelson Medical et al:
 In the United States District Court, District of Nevada, CV-S-01-701-PMP (RJJ) and CV-S-01-702-PMP (RJJ), December 14, 2001 (Expert Report), May 7, 2002 (Supplemental Expert Report), and October 3, 2002 (Deposition).
- Declaration and Reply Declaration of Dennis W. Carlton in Re: Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services: Before the Federal Communications Commission, Washington DC, CC Docket No. 01-337, FCC 01-360, March 1, 2002 (with H. Sider), and April 22, 2002 (with H. Sider and G. Bamberger).
- Declaration, Deposition, Reply Declaration, and Preliminary Injunction Hearing Testimony of Dennis W. Carlton in Re: Sun Microsystems Inc. v. Microsoft Corporation: In the United States District Court, Northern District of California, San Jose Division, Civil Action No. C 02-01150 RMW (PVT), March 8, 2002 (Declaration), June 27, 2002 (Deposition), August 9, 2002 (Reply Declaration), and December 4, 2002 (Preliminary Injunction Hearing Testimony In the United States District Court for the District of Maryland, Northern Division, MDL No. 1332).

- Declaration of Dennis W. Carlton in Re: In the Matter of Applications for Consent to the Transfer of
 Control of Licenses, Comcast Corporation and AT&T Corp., Transferors, to AT&T Comcast
 Corporation, Transferee: Before the Federal Communications Commission, Washington, D.C.,
 MB Docket No. 02-70, April 26, 2002
- Declaration of Dennis W. Carlton and Robert H. Gertner In Re Shirley Robinson, et al., v. Bell Atlantic Corporation d/b/a Verizon Communications, et al., United States District Court Eastern District of Kentucky, Lexington Division, Case No. 01-98. (08/30/02)
- Expert Report and Deposition of Dennis W. Carlton in Re: <u>Duramed Pharmaceuticals</u>, <u>Inc. v. Wyeth-Ayerst Laboratories</u>, <u>Inc.</u>: In the United States District Court, Southern District of Ohio, Western Division at Cincinnati, Civil Action No. C-1-00-735, August 19, 2002 (Expert Report) and September 24, 2002 (Deposition).
- Expert Report and Deposition of Dennis W. Carlton in Re: Philip Morris, Inc.: In the United States District Court for the District of Columbia, No. 99-CV-02496 (GK), May 10, 2002 (Expert Report) and September 10, 2002 (Deposition).
- Affidavit of Dennis W. Carlton in Re: <u>USG Corporation</u>, a <u>Delaware Corporation</u>, et al, In the United States Bankruptcy Court for the District of Delaware, Case No. 01-2094 (RJN), August 20, 2002 (Affidavit).
- Expert Report, Expert Rebuttal Report, and Discovery Deposition of Dennis W. Carlton in Re: <u>Sarah</u>

 <u>Futch Hall, d/b/a Travel Specialist, et al.</u>, on behalf of themselves and all others similarly situated

 <u>v. United Airlines, Inc., et al.</u>: In the United States District Court for the Eastern District of North
 Carolina Southern Division, No. 7:00-CV-123-BR(1), October 4, 2002 (Expert Report),
 November 13, 2002 Expert Rebuttal Report, and November 21, 2002 (Discovery Deposition).
- Initial Report of Dennis W. Carlton and Hal Sider in Re: <u>Sunrise International Leasing Corp., v. Sun Microsystems Inc.</u>, In the United States District Court for the District of Minnesota, Civil Action No. 01-CV-1057 (JMR/FLN), March 27, 2003 (Initial Report).

HAL SIDER April 2003

Business Address:

Lexecon Inc.

332 S. Michigan Ave.

Suite 1300

Chicago, IL 60604

(312) 322-0229

Home Address:

385 Ramsay Road

Deerfield, IL 60015

(847) 405-0153

EDUCATION

Ph.D., UNIVERSITY OF WISCONSIN, Madison, Wisconsin: Economics, 1980.

M.A., UNIVERSITY OF WISCONSIN, Madison, Wisconsin: Economics, 1978.

B.A., UNIVERSITY OF ILLINOIS, Urbana, Illinois: Economics, 1976.

EMPLOYMENT

- LEXECON INC., Chicago, Illinois (October 1985 present): 1985-90: Economist; 1990-1999: Vice President; 1999-current: Senior Vice President.
- U.S. COMMISSION ON CIVIL RIGHTS, Washington, D.C., (August 1984 October 1985): Co-Director: Project on Minority Income Trends.
- OFFICE OF POLICY: U.S. DEPARTMENT OF LABOR, Washington, D.C., (May 1982 August 1984): Economist.
- PRESIDENT'S TASK FORCE ON FOOD ASSISTANCE (on leave from U.S. Department of Labor), Washington, D.C., (September 1983 February 1984): Research Associate.
- OFFICE OF RESEARCH AND EVALUATION; BUREAU OF LABOR STATISTICS, Washington, D.C., (September 1980 May 1982): Economist.
- UNIVERSITY OF WISCONSIN, Madison, Wisconsin (1978 79): Teaching Assistant.
- UNIVERSITY OF WISCONSIN, Madison, Wisconsin (1976 78): Science Writer.

FIELDS OF SPECIALIZATION

Applied Microeconomics
Econometrics
Industrial Organization
Telecommunications
Labor Economics

ARTICLES

- "Have Mergers of Large Local Exchange Carriers Led to Discrimination Against Rivals? An Empirical Investigation" July 2002 (forthcoming, ABA publication on the use of econometrics in litigation, with Dennis Carlton and Thomas Stemwedel).
- "Recent Developments in U.S. Antitrust Enforcement," The United States Antitrust Review, October 1999 (with Gustavo Bamberger).
- "Market Power and Vertical Restraints in Retailing: An Analysis of FTC v. Toys 'R' Us," in <u>The Role of the Academic Economist in Litigation Support</u>, edited by Daniel Slottje (1999), with Dennis Carlton.
- "The Competitive Effects of Line-of-Business Restrictions in Telecommunications," Managerial and Decision Economics (1995), with Kenneth Arrow and Dennis Carlton. (Reprinted in R. Higgins and P. Rubin, eds., Deregulating Telecommunications: The Baby Bells' Case for Deregulation, Wiley Series in Managerial Economics, 1995.)
- "Applications of Economic Theory and Econometric Methods to Merger Review in the United States," (paper presented to European Commission Merger Task Force, 1992), with A. Rosenfield and W. Bishop.
- "Unemployment Incidence and Duration: 1968-1982," American Economic Review (June 1985).
- "The Pay Gap and Occupational Segregation: Implications for Comparable Worth," <u>Proceedings of the Industrial Relations Research Association</u> (1985), with June O'Neill.
- "Work-Related Accidents and the Production Process," Journal of Human Resources (Winter 1985).
- "Labor Force Participation and the Relative Earnings of Black and White Males: 1940-80," with Andy Sparks, (paper presented at the World Congress of the Econometric Society, 1985).
- "Comment on McIntyre: Estimating Long-Term Labor Market Flows from CPS Data," <u>Proceedings:</u>
 Conference on Applications of Gross Flow Data, U.S. Bureau of the Census (1985).
- "The Changing Makeup of the Military and the Effect on Labor Force Data," Monthly Labor Review (July 1984), with Cheryl Cole.

- "Accuracy of Response in Labor Market Surveys: Evidence and Implications," <u>Journal of Labor Economics</u> (October 1983), with Wesley Mellow.
- "Safety and Productivity in Underground Coal Mining," Review of Economics and Statistics (May 1983).
- "Economic Incentives and Safety Regulation," American Economist (Summer 1983).
- "Consumers and Product Safety: Market Processes and Imperfections," <u>Policy Studies Journal</u> (February 1983), with Eugene Smolensky.

REPORTS

The Economic Progress of Black Men in America, U.S. Commission on Civil Rights (1986).

Economic Status of Americans of Eastern and Southern European Ancestry, U.S. Commission on Civil Rights (1986).

Report of the President's Task Force on Food Assistance, Curran Press, Alexandria, Virginia (1984).

MISCELLANEOUS

University-Industry Dissertation Fellowship, University of Wisconsin, 1979-80.

Referee for:

Journal of Human Resources

Journal of Industrial Economics

Journal of Labor Economics

Journal of Law and Economics

Journal of Legal Studies

National Commission on Employment Policy

National Science Foundation

Policy Studies Journal

Review of Economics and Statistics

Social Science Research Council

U.S. Department of Health and Human Services

Antitrust Law Journal

TESTIMONIAL EXPERIENCE

- Sunrise International Leasing Corporation v. Sun Microsystems, Inc., United States District Court for the District of Minnesota, No. 01-CV-1057 (JMR/FLN). Affidavit on behalf of Sun Microsystems, March 2003 (with Dennis Carlton), relating to damage issues.
- Sunrise International Leasing Corporation v. Sun Microsystems, Inc., United States District Court for the District of Minnesota, No. 01-CV-1057 (JMR/FLN). Affidavit on behalf of Sun Microsystems, January 2003, relating to discovery issues.
- <u>Vitamin Antitrust Litigation</u>, MDL No. 1285, Declaration on behalf of opt-out plaintiffs, November 2002 (with William Landes and Gustavo Bamberger), relating to niacin damage issues.

- Mesler v. Prudential Insurance, et al., Circuit Court of Cook County, Illinois, No. 99 L 37, November 2002, on behalf of Prudential Insurance, et al. (Deposition testimony, January 30, 2003; March 6, 2003).
- MHC Financing Limited Partnership v. City of San Rafael, United States District Court for The Northern District of California, Expert Report on behalf of MHC, September 13, 2002 (with Daniel R. Fischel); Supplemental Report, September 30, 2002.
- <u>Vitamin Antitrust Litigation</u>, MDL No. 1285, United States District Court for the District of Columbia, deposition testimony, August 7-8, 2002, August 27, 2002, on behalf of opt-out plaintiffs.
- <u>Vitamin Antitrust Litigation</u>, MDL No. 1285, United States District Court for the District of Columbia.

 Declaration on behalf of opt-out plaintiffs, August 2002 (with William M. Landes and Gustavo Bamberger), relating to present value adjustment.
- <u>Vitamin Antitrust Litigation</u>, MDL No. 1285, United States District Court for the District of Columbia. Reply Expert Report on behalf of opt-out plaintiffs, July 2002 (with William M. Landes and Gustavo Bamberger), relating to damages.
- Dean Foods, Kraft Foods, Ralston Purina Company, Nabisco, Inc. and McKee Foods v. Eastman

 Chemical, et al., United States District Court, Northern District of California, San Francisco

 Branch. Supplemental Declaration on behalf of Dean Foods, et al., June 2002.
- <u>Vitamin Antitrust Litigation</u>, MDL No. 1285, United States District Court for the District of Columbia. Expert Report on behalf of opt-out plaintiffs, May 2002 (with William M. Landes and Gustavo Bamberger), relating to damages.
- Dean Foods, Kraft Foods, Ralston Purina Company, Nabisco, Inc. and McKee Foods v. Eastman
 Chemical, et al., United States District Court, Northern District of California, San Francisco
 Branch. Reply Declaration on behalf of Dean Foods, et al., May 2002.
- Joint Declaration to Federal Communications Commission, GN Docket No. 00-185, in the matter of Inquiry Concerning High-Speed Access to Internet Over Cable and Other Facilities (with K. Arrow, G. Becker, D. Carlton, R. Gertner, D. Fischel, J. Kalt, and G. Bamberger), May 2002, on behalf of Verizon.
- Declaration of Hal Sider in Re: Review of Regulatory Requirements for Incumbent LEC Broadband

 Telecommunications Services: Before the Federal Communications Commission, Washington
 DC, CC Docket No. 01-337, FCC 01-360, March 1, 2002 (with Dennis Carlton), May 2002 (with Dennis Carlton and Gustavo Bamberger), on behalf of Verizon.
- <u>Dean Foods, Kraft Foods, Ralston Purina Company, Nabisco, Inc. and McKee Foods v. Eastman</u>

 <u>Chemical, et al., United States District Court, Northern District of California, San Francisco Branch. Declaration on behalf of Dean Foods, et al., February 2002.</u>

- White-Janes v. Chicago Board of Education, U.S. District Court for the Northern District of Illinois, Eastern Division, CA No. 00C-6128. Expert Report, March 2002; Supplemental Report, April 2002; Deposition testimony, May 2002; Supplemental Report, November 2002, on behalf of White-Janes.
- Forest Laboratories, Inc. v. G.D. Searle and Co., U.S. District Court for the Northern District of Illinois, Eastern Division, CA No. 98C-5170. Expert Report on behalf of Forest Laboratories, April 2001 (with David Gross).
- Reply Declaration Re: <u>Joint Application of Northpoint Communications and Verizon Communications</u>
 <u>for Authority to Transfer Control of Blanket Authorization to Provide Domestic Interstate</u>
 <u>Telecommunications Services as a Non-Dominant Carrier</u>: Before the Federal Communications
 Commission, Washington DC, Docket No. 00-157, October 17, 2000 (with Dennis Carlton), on behalf of Verizon and Northpoint.
- <u>Vitamin Antitrust Litigation</u>, MDL No. 1285, United States District Court for the District of Columbia. Expert Report on behalf of opt-out plaintiffs, June 2000 (with William M. Landes), relating to discovery issues.
- Ex Parte Declaration to Federal Communications Commission, CC Docket No. 99-333, in the matter of <u>Joint Application of MCI WorldCom and Sprint for Consent to Transfer Control</u>, May 2000, on behalf of SBC.
- Gas City, Ltd. v. Indiana Department of Transportation, Circuit Court of St. Joseph County, Indiana. Affidavit on behalf of Gas City, March 2000.
- Declaration before the Federal Communications Commission, CC Docket No. 99-333, in the matter of <u>Joint Application of MCI WorldCom and Sprint for Consent to Transfer Control</u>, February 2000 (with Dennis Carlton), on behalf of SBC.
- Ex Parte Comments to Federal Communications Commission, CC Docket No. 99-272, in the matter of the Merger of Qwest Communication International Inc. and U S WEST, February 2000, on behalf of Qwest and U S WEST.
- Lemon, Myer, Duncan et al. v. International Union of Operating Engineers, et al., U.S. District Court for the Eastern District of Wisconsin, Case No. 97-C-0857. Affidavit on behalf of International Union of Operating Engineers (December 1999): deposition (January 2000); Supplemental Report (February 2000).
- Declaration before the Federal Communications Commission, CC Docket No. 99-272, in the matter of Merger of Qwest Communications International Inc. and U S WEST, Inc., October 18, 1999 (with Dennis Carlton), on behalf of Qwest and U S WEST.
- Ex Parte Report to the Federal Communications Commission, CC Docket No. 98-141 regarding the Merger of SBC Communications Inc. with Ameritech Corporation, April 1999 (with Dennis Carlton) on behalf of SBC and Ameritech.

- Riverside Pipeline Co., v. Panhandle Eastern Pipeline Co., United States District Court for the Western District of Missouri, Case No. 97-0642-CV-W-4, Expert Report in September 1998, on behalf of Panhandle Eastern Pipeline Co.
- Lemon, Myer, Duncan et. al. v. International Union of Operating Engineers, et al., United States District Court for the Eastern District of Wisconsin, Case No. 97-C-0857; Affidavit in September 1998, on behalf of International Union of Operating Engineers.
- Testimony before the Department of Public Service of the State of West Virginia in the Matter of

 <u>Application of WorldCom, Inc., Corp., for Approval to Transfer Control of MCI Communication to WorldCom, Inc.</u> (June 17, 1998); oral testimony (July 2, 1998), on behalf of WorldCom.
- Testimony before the Department of Public Service Regulation, Public Service Commission of the State of Montana, Docket No. D97.10.191, in the Matter of the <u>Application of WorldCom, Inc. and MCI Communications Corporation for Approval to Transfer Control of MCI Communications Corporation to WorldCom, Inc.</u>, May 12, 1998, on behalf of WorldCom.
- Testimony before the Public Utilities Commission of the State of Colorado, Docket No. 97A-494T, in re

 <u>Application of WorldCom, Inc. for Approval to Transfer Control of MCI Communications</u>

 <u>Corporation to WorldCom, Inc.</u>, pre-filed direct testimony (March 25, 1998), cross-examination
 (April 2, 1998); on behalf of WorldCom.
- Affidavit before the Florida Public Service Commission, Docket No. 971375-TP, Petition of WorldCom, Inc., for Approval to Transfer Control of MCI Communications Corporation to WorldCom, Inc., February 27, 1998 (with Dennis Carlton); on behalf of WorldCom.
- Affidavit before the New York State Public Service Commission, Case 97-C-1804, <u>Petition of WorldCom</u>, <u>Inc. for Approval to Transfer Control of MCI Communications Corporation to WorldCom</u>, <u>Inc.</u>, February 16, 1998 (with Dennis Carlton); on behalf of WorldCom.
- Second Declaration before the Federal Communication Commission, CC Docket No. 97-211, in the Matter of Application of WorldCom, Inc. and MCI Communications Corporation for Transfer of Control of MCI Communications Corporation to WorldCom, Inc., March 19, 1998 (with Dennis Carlton); on behalf of WorldCom and MCI.
- Shuller v. United States, U.S. District Court for the Eastern District of Pennsylvania, Civil Action No. 97-3820, Expert report in February, 1998; on behalf of U.S. Department of Justice.
- Declaration before the Federal Communication Commission, CC Docket No. 97-211, in the Matter of Applications of WorldCom, Inc. and MCI Communications Corporation for Transfer of Control of MCI Communications to WorldCom, Inc., January 25, 1998 (with Dennis Carlton); on behalf of WorldCom and MCI.
- Smith v. Amtrak, Circuit Court of Cook County, IL, Case 92 L 10525. Deposition in November 1997, trial testimony in January 1998; on behalf of Smith.

- Johnson and Lehl v. City Colleges of Chicago, U.S. District Court for the Northern District of Illinois Eastern Division Case No. 96 C 0862. Expert report in July 1997, deposition testimony in November 1997; on behalf of City Colleges of Chicago.
- Gelumbauskas v. Precision Gear, U.S. District Court, Northern District of Illinois Eastern Division, Case No. 96 C 0862. Expert report in April 1997; on behalf of Gelumbauskas.
- Galvan v. U.S. Industries, Expert Report on December 27, 1997, deposition testimony in January 1997; on behalf of U.S. Industries.
- Sprint Communications Company L.P. v. Network 2000 Communications Corporation, Expert report on July 15, 1996, deposition testimony in July, August 1996; affidavit on November 9, 1996; on behalf of Sprint.
- Beazer East v. CSX Transportation, Inc., U.S. District Court for the Western District of Pennsylvania Case No. 93 0861, Expert report in April 1996; deposition testimony in June 1996; on behalf of CSX.
- Report submitted in May 1996 to the National Association of Insurance Commissions on behalf of National Association of Independent Insurers.
- Carbon Dioxide Industry Litigation, U.S. District Court for Central District of Florida MDL940. Expert report in October 1994 (with William M. Landes); supplemental report (with William M. Landes and Richard Leftwich) in May 1995; deposition testimony in July 1995; on behalf of opt-out plaintiffs.
- AVR, Inc. v. Cemstone Products Corp., U.S. District Court, District of Minnesota, Third Division, File CIV 3-92-551. Expert report in October 1994; supplemental affidavits in December 1994, January 1995; on behalf of Cemstone.
- W. Borysiewicz v. M. Gilblair, Circuit Court of Cook County, Illinois. Deposition testimony in August 1994; trial testimony in September 1994; on behalf of Borysiewicz.
- NAACP et. al. v. American Family Mutual Insurance Co., U.S. District Court, Eastern District of Wisconsin, Civil Action No. 90-C-0759. Deposition testimony in July 1994 and November 1994; on behalf of American Family.
- G. Bowan v. The Sales Force Companies, U.S. District Court for The Western District of Missouri, Case
 No. 92-0496-CV-W-2. Affidavit in February 1993; on behalf of Sales Force.
- Wisconsin Central Transportation Corporation -- Continuance in Control -- Fox Valley and Western Ltd., Finance Docket 32036. Verified Statement to the Interstate Commerce Commission in September 1992 (with Andrew M. Rosenfield); on behalf of the Wisconsin Central.
- <u>Castaneda v. Baron Wire and Steel Inc.</u>, Circuit Court of Cook County, Illinois, Municipal Department, Second District. Deposition testimony in February 1992; on behalf of Castaneda.
- Morgan v. ServiceMaster, U.S. District Court for the Northern District of Illinois, Case No. 89-C-0581.

 Report in August 1991 (with Sherwin Rosen); on behalf of ServiceMaster.

- Sepich v. Mueller, U.S. District Court for the Central District of Illinois, U.S. District Court, Case No. 88-2353. Report in March 1991 (with Sherwin Rosen); on behalf of Mueller.
- N. Savakis v. Beatrice Company, U.S. District Court for the N.E. District of Illinois Eastern Division, No. 89 C5790. Deposition testimony in June 1990; on behalf of Beatrice.
- <u>Times Herald Printing Company v. A.H. Belo Corp. and Dallas Morning News Company</u>, District Court of Harris County Texas, 280th Judicial District. Deposition testimony in April 1990; on behalf of Dallas Morning News.
- <u>Turner v. IDS Financial Services, Inc.</u>, U.S. District Court for the District of Minnesota, File No. 88-521. Report in November 1989; on behalf of IDS.
- McLendon et al. v. Continental Group et. al, U.S. District Court for the District of New Jersey, Civil Action No. 83-1340 (SA). Trial testimony in February 1989, testimony before Special Master in February 1990; testimony before Special Master (with Sherwin Rosen) in August 1990; on behalf of Continental Group.
- Application of Illini Carrier L.P. before Illinois Commerce Commission. Testimony in April 1988 regarding application to provide natural gas transportation services; on behalf of Illini Carrier.

May 2003

ALLAN L. SHAMPINE

Business Address: Lexecon Inc.

332 South Michigan Avenue

Suite 1300

Email: ashampine@lexecon.com

Chicago, Illinois 60604-4306

Home Address:

5441 Arcadia

Skokie, IL 60077

(847) 663-1433

(312) 322-0294

EDUCATION

Ph.D. UNIVERSITY OF CHICAGO: Economics, 1996

(Full scholarship from the University)

M.A. UNIVERSITY OF CHICAGO: Economics, 1993

(Full scholarship from the University)

B.S. SOUTHERN METHODIST UNIVERSITY: Economics and Systems Analysis,

Mathematics Minor, 1991

(Summa Cum Laude, Honors, Departmental Distinction)

EMPLOYMENT

LEXECON, INC., Chicago, Illinois: Economist (1996 - present)

UNIVERSITY OF CHICAGO: Teaching Assistant (1994 – 1996)

DEGOLYER SPECIAL COLLECTIONS LIBRARY (May - July 1991)

BARNES & NOBLE (May - July 1989)

UNIVERSITY OF TEXAS, Research Assistant to Dr. Brian Berry (May - July 1987)

OTHER PROFESSIONAL EXPERIENCE

Member of the American Economics Association

Associate member of the American Bar Association

Referee for the American Journal of Agricultural Economics and Journal of Business.

- Coordinated the Conference on Valuing Non-Market Goods, University of Chicago (July 21-22, 1995)
- Assisted in coordinating the Conference on Research in Health Economics, University of Chicago (October 21-22, 1994)
- Assisted in organizing the *Economic Policy and Public Finance Workshop*, University of Chicago (1993 1996)
- Presented papers on information externalities and technology diffusion at the *Economics and Public Policy Workshop* (3) and *Price Theory Workshop* (1), University of Chicago (1995, 1996)
- Presented *The Impact of Technology on the Modern Labor Market* at the 68th Annual Meeting of the Southwestern Social Science Association (March 29, 1990)

Independent research projects with Drs. Slottje and Hayes, Southern Methodist University (1987 - 1991)

ACADEMIC HONORS

Graduated Summa Cum Laude, Honors, Department Distinction

Phi Beta Kappa

Alpha Lambda Delta (Treasurer, honorary society recognizing academic achievement)

Phi Eta Sigma (honorary society recognizing academic achievement)

Omicron Delta Epsilon (international honor society in economics)

Kappa Mu Epsilon (honor society in mathematics)

Award for Excellence (given to the outstanding senior in the Economics Department as decided by the vote of the faculty)

Presidential Scholarship (full scholarship, Southern Methodist University)

National Merit Scholar (honorary)

Full Scholarship (University of Chicago)

Hyer Society (honorary society of Southern Methodist University)

Honor Roll (1987-1991)

AREAS OF SPECIALIZATION

Telecommunications
Technology Diffusion
Urban Economics
Agricultural Economics
Environmental Economics

PUBLICATIONS

BOOKS

Down to the Wire: Studies in the Diffusion and Regulation of Telecommunications

Technologies, (Editor) Nova Science Press (forthcoming 2003).

ARTICLES

- "The Evolution of Telecommunications Switching in the Central Office," in <u>Down to the Wire:</u>
 <u>Studies in the Diffusion and Regulation of Telecommunications Technologies</u>, Nova
 Science Press (forthcoming 2003).
- Handicapping Countries in the Race to Digital Switching, Progress in Economics, edited by Frank Columbus (forthcoming 2003).
- The Welfare Implications of Advertising and Extension Under Uncertainty (with George Tolley) Technological Forecasting & Social Change, 70 (2003).
- Determinants of the Diffusion of U.S. Digital Telecommunications, Journal of Evolutionary Economics, 11 (2001).
- Compensating for Information Externalities in Technology Diffusion Models, 80 American Journal of Agricultural Economics, 2 (1998).
- Contributed to two catalogs at DeGolyer Special Collections Library (1991).
- The Impact of Technology on the Modern Labor Market, 11 Southwestern Journal of Economic Abstracts, 1 (1990).

RESEARCH PAPERS

An Evaluation of Technology Diffusion Models and Their Implications, *Ph.D. Dissertation*, *University of Chicago (1996)*.

A New Direction in Mixed Income Housing, submitted to Chicago Housing Authority (1993).

UNPUBLISHED PAPERS

A Survey of the Economics of Information, Focussing on Water (1992).

Petroleum Price Shocks and Rationality, B.S. Honors Paper (1991).

EXPERT TESTIMONY

- Reply Declaration Re: 2000 Biennial Regulatory Review Spectrum Aggregation Limits for Commercial Mobile Radio Services, Before the Federal Communications Commission, Washington DC, WT Docket No. 01-14, May 14, 2001, Reply Declaration (with Robert Gertner).
- Declaration Re: 2000 Biennial Regulatory Review Spectrum Aggregation Limits for <u>Commercial Mobile Radio Services</u>, Before the Federal Communications Commission, Washington DC, Docket No. 01-14, April 13, 2001, Declaration (with Robert Gertner).
- Report to Directorate General IV of the European Commission: "Remedies in the United States," in Remedies in the United States, in Remedies in EU Competition Law: The Policy and Practice of the European Commission, A Report for Directorate General IV of the European Commission, July 1998, Report (with James Langenfeld).